



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 07ATEX2002** Issue: **2**

4 Equipment: **SBES-LWT-IS-C and SBES-LWT-IS-C2**

5 Applicant: **SBES Ltd**

6 Address: **Unit F  
Blackborough Rd  
Reigate  
Surrey RH2 7BU  
UK**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0: 2006

EN 50020:2002

EN 60079-26:2004

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1 G

EEx ia IIC T4 (T<sub>a</sub> = -20°C to +40°C)

Project Number 24132

C. Index 15

This certificate and its schedules may only be reproduced in its entirety and without change.

C Ellaby  
Certification Officer

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

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#### 13 DESCRIPTION OF EQUIPMENT

The SBES-LWT-IS-C or SBES-LWT-IS-C2 is a portable device carried by personnel, which transmits a radio frequency alarm signal if the carrier of the device gets into difficulties. It comprises, a printed circuit board, a single lithium cell, a sounder, a vibration motor and an antenna all housed inside a plastic enclosure.

The lithium cell used is a Saft Type LS14250, 3.6V lithium thionyl chloride.

**Variation 1** - This variation introduced the following changes:

- i. The introduction of the Type SBES-LWT-IS-C2 which incorporates the amendments listed below:
  - The redesign of the circuit to use a different microcontroller
  - The use of a modified printed circuit board incorporating the above changes
  - Removal of the option of using Lithium cell 3.6V LST17330
  - Modifications to the internal assembly resulting from the above changes

**Variation 2** - This variation introduced the following changes:

- i. Capacitor C1 was changed to 10  $\mu$ F (previously 2.2  $\mu$ F).
- ii. The supplier's component code was modified.
- iii. The operating instructions were changed.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	26 January 2007	R52A16059A	The release of the prime certificate.
1	27 February 2008	R59A17291A	This Issue covers the following changes: <ul style="list-style-type: none"><li>• All previously issued certification was rationalised into a single certificate, Issue 1, Issues 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.</li><li>• The introduction of Variation 1.</li></ul>
2	28 January 2011	R24132A/00	The introduction of Variation 2.

#### 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

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17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 The equipment covered by this certificate incorporates previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of the equipment.

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# Certificate Annexe

Certificate Number: Sira 07ATEX2002

Equipment: SBES-LWT-IS-C

Applicant: SBES Ltd



## Issue 0

Drawing No.	Sheet	Rev.	Date	Description
21.28.01	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Label
21.28.02	1 to 4	001	17 Jan 07	SBES-LWT-IS-C Layout
21.28.03	1 to 3	001	17 Jan 07	SBES-LWT-IS-C Build
21.28.04	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Haz Area
21.28.05	1 of 1	001	17 Jan 07	SBES-LWT-IS-C Supplier
21.28.06	1 to 4	001	17 Jan 07	SBES-LWT-IS User Inst
21.28.07	1 of 1	1	17 Jan 07	SBES-LWT-IS-C Circuit Diagram

## Issue 1

Drawing No.	Sheet	Rev	Date	Description
22.28.01	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Label
22.28.02	1 to 4	001	05 Sep 07	SBES-LWT-IS-C2 Layout
22.28.03	1 to 3	001	05 Sep 07	SBES-LWT-IS-C2 Build
22.28.04	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Haz Area
22.28.05	1 of 1	001	05 Sep 07	SBES-LWT-IS-C2 Supplier
22.28.06	1 to 4	001	05 Sep 07	SBES-LWT-IS-C2 User Inst
22.28.07	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 Circuit Diagram
22.28.09	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C Tolerances
22.28.10	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 TX1 Circuit Diagram
22.28.11	1 of 1	Initial	05 Sep 07	SBES-LWT-IS-C2 Component Layout

## Issue 2

Drawing	Sheets	Rev.	Date	Title
22.28.07	1 of 1	02	05 Jan 10	SBES-LWT-IS-C2 Circuit Diagram
22.28.05	1 of 1	002	07 Jan 11	SBES-LWT-IS-C2 Parts Supplier
22.28.06	1 of 4	002	07 Jan 11	SBES-LWT-IS-C2 User Instructions
22.28.06	2 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Instructions
22.28.06	3 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Instructions
22.28.06	4 of 4	002	05 Jan 11	SBES-LWT-IS-C2 User Instructions

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